Page 27, line 35 of Table 1, please insert --(SEQ. ID. NO. 42)-- after "LYFEYLDKDL";
Page 27, line 36 of Table 1, please insert --(SEQ. ID. NO. 43)-- after "LVFEYLDSDL";
Page 27, line 37 of Table 1, please insert --(SEQ. ID. NO. 44)-- after "IGADFLTKEV";
Page 27, line 38 of Table 1, please insert --(SEQ. ID. NO. 45)-- after "IGVEFLNKDL";
Page 27, line 39 of Table 1, please insert --(SEQ. ID. NO. 46)-- after "ISVEFLVLDS";
Page 27, line 40 of Table 1, please insert --(SEQ. ID. NO. 47)-- after "SDIDFLIEEI";
Page 28, line 1 of Table 1, please insert --(SEQ. ID. NO. 48)-- after "AIGEFILVDK";
Page 28, line 2 of Table 1, please insert --(SEQ. ID. NO. 49)-- after "QKQEYKTLEY";
Page 2, line 3 of Table 1, please insert --(SEQ. ID. NO. 50)-- after "PPPxY"; and
Please insert the enclosed paper copy of the SEQUENCE LISTING at pages 31 through 42 of the application.

IN THE CLAIMS:

- 1. (Amended) A method for controlling or up-regulating the availability or activity of a protein comprising regulating binding of [the] <u>a</u> ubiquitin[/]-proteasome system at a ubiquitin[/]-proteasome binding site of said protein.
- 2. (Amended) [A]The method according to claim 1, wherein said <u>ubiquitin-proteasome</u> binding site comprises [the] <u>an</u> amino acid sequence motif xEFIxxDx (SEQ. ID. NO. 1)[or a sequence essentially corresponding thereto], wherein D is [the amino acid] aspartic acid, E is [the amino acid] glutamic acid, F is [the amino acid] phenylalanine, I is [the amino acid] isoleucine and X is any other amino acid.
- 3. (Amended) A method for controlling the [availability and/or] signal transduction capability of a cell surface receptor comprising providing an inhibitor capable of inhibiting proteolytic cleavage of said receptor.
- 4. (Amended) [A]The method according to claim 3 wherein said inhibitor is capable of inhibiting

proteolytic cleavage of an intra-cellular part of said receptor.

- 5. (Amended) [A]<u>The</u> method according to claim 3, wherein said inhibitor is capable of inhibiting proteolytic cleavage of an intra-cellular part of said receptor.
- 6. (Amended) [A]The method according to [anyone of] claim[s] 3 [to 5], wherein said receptor is a hormone receptor[, preferably selected from a group consisting of amino acid derivative, prostaglandine, peptide or protein hormone receptors].
- 7. (Amended) [A]The method according to claim 6, wherein said receptor is a growth hormone receptor.
- 8. (Amended) [A]The method according to claim[s] 1, [or 2] wherein said protein is a transport protein.
- 9. (Amended) [A]<u>The</u> method according to claim 8, wherein said transport protein is Glut4 insulin regulated glucose transporter.
- 10. (Amended) An inhibitor for regulating the availability or activity of a protein, said inhibitor comprising a [(poly)]polypeptide [or (poly)peptide analogue or mimeticum] that [is derived from, competes with, or binds to an amino acid sequence located at or around a] interferes with ubiquitin[/]-proteasome system regulation of cell surface receptors of a cell [binding site located in a protein].
- 11. (Amended) [A] The [(poly)peptide or (poly)peptide analogue or mimeticum] inhibitor according to claim 10, wherein said polypeptide interferes with said ubiquitin-proteasome system by binding to a ubiquitin-proteasome system binding site [comprises the] comprising an amino acid sequence motif xEFIxxDx (SEQ. ID. NO. 1)[or a sequence essentially corresponding thereto],

wherein D is [the amino acid] aspartic acid, E is [the amino acid] glutamic acid, F is [the amino acid] phenylalanine, I is [the amino acid] isoleucine and x is any other amino acid.

- 12. (Amended) The method according to claim 3, wherein [An] said inhibitor is capable of inhibiting proteolytic cleavage of a cell surface receptor [for use in a method according to anyone of claims 1 to 7].
- 13. (Amended) The method according to claim 12, wherein said [An] inhibitor [according to claim 12 which] is capable of inhibiting proteolytic cleavage of [the] an intra-cellular part of said receptor.
- 14. (Amended) The method according to claim 13, wherein said [An] inhibitor [according to claim 13] is selected from the group of proteasome inhibitors[, such as] consisting of MG132, carboxybenzyl-leucyl
- 15. (Amended) The method according to claim 13, wherein said [An] inhibitor [according to claim 13 comprising] comprises a [(poly)]polypeptide [or (poly)peptide analogue or mimeticum] that is derived from, competes with, or binds to an amino acid sequence located at or around a [ubiquitin and/or] ubiquitin[/]-proteasome system binding site located in [the] an intra-cellular part of a cell-surface receptor.
- 16. (Amended) The method [An inhibitor] according to claim 15 wherein, said <u>ubiquitin-proteasome system</u> binding site comprises the amino acid sequence motif xEFIxxDx or a sequence essentially corresponding thereto, wherein D is [the amino acid] aspartic acid, E is [the amino acid] glutamic acid, F is [the amino acid] phenylalanine, I is [the amino acid] isoleucine and X is any other amino acid.
- 17. (Amended) The method according to claim 16, [An inhibitor according to claim 16] wherein

said <u>ubiquitin-proteasome system</u> binding site comprises [the] <u>an</u> amino acid sequence <u>selected from</u> the group consisting of DDSWVEFIELDI (SEQ. ID. NO. 2) [or] and DSWVEFIELD (SEQ. ID. NO. 3).

- 18. (Amended) The method according to claim 12, wherein said [An] inhibitor [according to claim 12] is capable of inhibiting proteolytic cleavage of extra-cellular part of said receptor.
- 19. (Amended) The method [An inhibitor] according to claim 18, wherein said extra-cellular part comprises an approximately 60 kDa fragment of an extra-cellular domain of the growth hormone receptor.
- 20. (Amended) The method [An inhibitor] according to claim 18 [or 19], wherein said inhibitor [comprising] comprises a [(poly)]polypeptide [or (poly)peptide analogue or mimeticum] that is derived from, competes with or binds to an amino acid sequence located at or around a proteolytic cleavage signal site located in an extra-cellular part of said receptor.
- 21. (Amended) The method [An inhibitor] according to claim 20, wherein said cleavage signal site comprises [that] the amino acid sequence CEEDFYR (SEQ. ID. NO. 7)[or a sequence essentially corresponding thereto].
- 22. (Amended) The inhibitor according to claim 10, wherein said [A (poly)peptide or (poly)]polypeptide [analogue or mimeticum that is derived from, competes with or binds to an amino acid sequence located at or around a ubiquitin and/or ubiquitin/proteasome system] interferes with said ubiquitin-proteasome system by binding to a ubiquitin-proteasome system binding site located in the intra-cellular part of a cell-surface receptor.
- 23. (Amended) The [A (poly)peptide or (poly)peptide analogue or mimeticum] inhibitor according to claim 22, wherein said binding site comprises [the] an amino acid sequence motif xEFIxxDx

(SEQ. ID. NO. 1)[or a sequence essentially corresponding thereto], wherein D is [the amino acid] aspartic acid, E is [the amino acid] glutamic acid, F is [the amino acid] phenylalanine, I is [the amino acid] isoleucine and x is any other amino acid.

- 24. (Amended) The inhibitor according to claim 10, wherein said [A (poly)peptide or (poly)]polypeptide [analogue or mimeticum that is derived from, competes with or binds to] interferes with said ubiquitin-proteasome system by binding to an amino acid sequence located at or around a proteolytic cleavage signal site located in [the] an extra-cellular part of a receptor.
- 25. (Amended) The inhibitor [A (poly)peptide or (poly)] peptide [analogue or mimeticum] according to claim 24, wherein said cleavage signal site comprises [the] an amino acid sequence CEEDFYR (SEQ. ID. NO. 7) [or a sequence essentially corresponding thereto].
- 26. (Amended) A pharmaceutical composition comprising an inhibitor according to [any of claims 12-21 or a (poly)peptide or (poly)peptide analogue or mimeticum according to any of] claim[s] 10[, 11, or 22-25].
- 28. (Amended) A pharmaceutical composition according to claim 27 for [administering] administration in conjunction with a hormone.
- 29. (Amended) The pharmaceutical composition according to claim 26, wherein [Use of an inhibitor according to any of claims 12 to 21 or a (poly)peptide or (poly)peptide analogue or mimeticum according to any of claims 10,11 or 22-25 for the production of a pharmaceutical composition] <u>said</u> inhibitor is used for controlling the availability and or signal transduction capability of a cell surface receptor.
- 30. (Amended) The pharmaceutical composition according to claim 29, wherein said [Use according to claim 29 for the production of a] pharmaceutical composition is used for regulating the

activity of a hormone.

- 31. (Amended) The pharmaceutical composition according to claim 29, [Use according to claim 29 or 30] wherein said <u>pharmaceutical</u> composition is administered in conjunction to the administration of said hormone.
- 32. (Amended) The pharmaceutical composition according to claim 29, wherein said pharmaceutical composition is used [Use according to any of claims 29 to 30 for the production of a pharmaceutical composition] for [the] treatment of muscle wasting.
- 33. (Amended) The [A] method according to claim 1, wherein, said regulating binding of the a ubiquitin-proteasome system at a ubiquitin-proteasome binding site of said protein comprises controlling or up-regulating [to control or up-regulate] hormone activity by using an inhibitor polypeptide which interferes with ubiquitin-proteasome system regulation of cell surface receptors of a cell [according to any of claims 12 to 21 or a pharmaceutical composition according to any of claims 26 to 28].

Please add the following new claims:

- 34. The method according to claim 6, wherein said hormone receptor is selected from the group consisting of amino acid derivatives, prostaglands, peptides or protein hormone receptors.
- 35. The inhibitor according to claim 10, wherein said polypeptide interferes with said ubiquitin-proteasome system regulation of cell surface receptors of a cell by inhibiting ligand-induced receptor uptake.
- 36. The inhibitor according to claim 10, wherein said polypeptide interferes with said ubiquitin-proteasome system regulation of cell surface receptors of a cell by inhibiting receptor degradation caused by endocytosis.